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## SCIENCE:

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## CURRENT NOTES ON ANTHROPOLOGY.—IV.

[Edited by D. G. Brinton, M.D., LL.D.]

## The Study of Jargons.

ONLY lately have linguists awakened to the extreme value of the study of jargons, and of hybrid and mixed languages. The fact is that in such we have the nascent condition of speech, the parturition of language, caught in the act. The phonetic and grammatic laws we see at work in the formation of a jargon are the same which have given to all existing tongues their form and ideality.

The linguist to whom we owe the most in this new field is Hugo Schuchardt of Gratz. His works, published by the Imperial Society of Vienna, have presented especially the mixed dialects arising from the intermingling of Spanish and Portuguese with the native tongues of Insulinia. His analyses of them are masterful, and may justly serve as models for all similar researches.

More interesting to American readers is the recent publication of Dr. Karl Lentzner of Berlin, "Wörterbuch der englischen Volkssprache Australiens." It is in English in spite of this German title, and presents glossaries of Australian, Anglo-Indian, Pidgin English, West Indian and South African words. He adds an appendix, with numerous examples, and a discussion of these curious forms.

The book offers racy material for a magazine article, is full of quaint and humorous expressions, and tempts to numerous extracts. But it is enough to name it here, that it may not be overlooked by those who are interested in "Americanisms," folk-lore, slang, and such developments of language.

## The Lotos-Eaters and the Troglodytes.

There is something peculiarly attractive in following the ancient Homeric voyages by the light of modern science. Who were the "mild-eyed, melancholy Lotus-Eaters," who

dreamily strolled their island shores? Who the Troglodytes, cave-dwellers, speaking a strange language, which Herodotus compares to the squeaking of rats?

Two recent articles enable us to answer these questions satisfactorily. The one is by Dr. E. T. Hamy, in *L'Anthropologie*; the other by Rudolf Fitzner in the *Globus* (Band lxi.). The Lotos Isle was undoubtedly the island of Djerba, at the southern entrance to the Gulf of Gabes (north latitude 33° 40'). Its population is of unusually pure blood, and presents a fine example of the native blonde type of Northern Africa. The complexion is a full white, or slightly reddish, the head short, the face round, the nose straight, the lips thin. In other words, they are entirely similar to the Kabyles of the Djurdjura, and the Rifians of Morocco. All three belong to the true Berbers, and speak near dialects of the same tongue.

The Troglodytes are of the same blood. They also are Berbers, of the stem of the Matmâta, living in the mountainous region between the Gulf of Gabes and the great salt lagoon, the Schott El Djerid. There they construct their strange, boat-shaped, cave-dwellings, just as they did in the days of Sallust and Herodotus and long before.

It is interesting to note that Fitzner (who adds a good ethnographic map of the regency of Tunis) recognizes the probable ethnic identity of the Berbers, Iberians and Etruscans,—a relationship which I believe I was the first to maintain.

## A Native Maya Historian.

One of the most interesting documents relating to the history of America in the sixteenth century is a narrative of the Spanish conquest of Yucatan, written in his native language by a chieftain of one of the subjugated Maya tribes. The original text was published complete for the first time in Vol. I. of the "Library of Aboriginal American Literature" (Philadelphia, 1881), with an English translation. It merited, however, a much more complete analysis than was there given it, and this it has lately received from the competent hand of the eminent linguist, the Count H. de Charencey. Under the title, "Chrestomathie Maya d'après la Chronique de Chac-Xulub-Chen," he gives us an octavo volume of 301 pages containing the original Maya text with an interlinear translation in Latin, an exhaustive grammatical analysis, and a complete Maya-French vocabulary.

M. de Charencey very justly remarks that there is scarcely any other American language which presents so much interest as the Maya, in view of the high civilization of the people who spoke it, as well as its own linguistic traits. His excellent "Chrestomathie," therefore, should be obtained by all our leading libraries. It is published in Paris, Librairie C. Klincksieck, 11 Rue de Lille.

## Dr. Topinard's Latest Work.

All who know anything about the literature of anthropology are acquainted with the works of Dr. Paul Topinard, and will acknowledge that there are none better on physical anthropology. The latest from his pen is "L'Homme dans la Nature" (Paris, 1891), a title which cannot be considered a very fortunate one, as it is difficult to imagine where else man could be than in nature. But let that pass. The interest of the volume lies in the more pronounced position which the author takes on the theory of human evolution, or, as the French prefer to call it, transformation. This theory is undoubtedly less popular in France than it was

ten years ago, a change mainly owing to direct and indirect clerical influence; and it is therefore gratifying to find an eminent teacher like Topinard, boldly pronouncing in its favor, and declaring that it is the only possible theory adequate to explain known facts in the physical history of the human species.

The author makes frequent reference to his larger work "*Eléments d'Anthropologie Général*"; but the instructions for practical observations and the abstracts of the results of other investigators furnished in the present much smaller volume, will be sufficient to satisfy those students of the subject who feel themselves somewhat appalled by the nearly twelve hundred closely printed pages of the "*Eléments*."

#### Some Native Brazilian Tribes.

A model ethnographic study is that of some Brazilian tribes by Dr. Paul Ehrenreich, published in the second volume of the *Veröffentlichung aus dem Königlichen Museum für Völkerkunde zu Berlin*. He takes up the Karaya stock on the river Araguaya, and some tribes, the Paumari, the Yamamadi and the Ipurina on the Purus River. His descriptions meet all our requirements except in the important matter of language. This he no doubt designedly omits; though he mentions that among the Karaya the men and women have separate dialects, rarely, however, radically different words.

Of these little-known peoples he describes the costume, house-building, methods of obtaining food, tools, and weapons, etc. It is curious to note the love of the Karayas for taming animals. "Their villages resemble menageries." Dogs, fowls, cats, peccaries, parrots, even turtles, alligators and tapirs, meet the astonished traveller. The native does not look upon them as "lower animals," but quite on the same plane of existence as himself, and as his friends and companions.

The history and extension of the tribes are defined, and a number of admirable photogravures set forth truthfully to the eye their physical characteristics.

#### A MACHINE FOR CHURNING FRESH MILK.

In Bulletin No. IX. of the Delaware experiment station (Newark, Del.) are given the results of a series of experiments made to determine the practical value of the butter extractor, a machine with which butter may be made directly from the freshly drawn milk.

In principle this machine resembles the DeLaval separator, which has now come into general use in creameries and large dairies, by which the cream is separated from sweet milk by centrifugal motion, but the butter extractor goes a step farther, and not only separates but churns the cream.

The machine operated with was made by an American company. It was found to require considerable experience to operate it successfully, and the tests upon which the station's comparisons are based were made under the personal supervision of the manufacturers of the machine. The results were that it was found that while the separator and churn obtained 93.34 pounds of butter out of every 100 pounds in the milk, the extractor obtained but 84.60 pounds, a loss of 8.74 pounds, and the butter thus obtained was of such quality that it could not be sold in competition with butter made from ripened cream.

In summing up the results of his tests Professor Penny, the chemist of the station says:—

"As to the relative expense of running in the one case the extractor alone and in the other the separator and churn together, it is doubtful if a creamery having only one machine would save anything in the number of hands employed, while in larger establishments the loss, greater by 8.74 per cent, caused by the extractor is heavier than the saving in wages. On a daily business of five thousand pounds of milk this deficiency is equal to fifteen or seventeen pounds of butter, yet such a business with the separator and churn need not employ more than two men, and the extractor could hardly employ fewer. The expense for power, etc., is nearly the same in the two cases. It must also be considered that while the separator requires the milk to be previously heated during much of the year—a simple and cheap operation—the extractor requires it to be cooled, at least in warm weather, and this calls for a greater supply of cool water or of ice—a decided disadvantage and in some creameries an unwarranted expense.

"Hence one feels justified in concluding that, if the quality of the butter be left out of the account, the extractor at present offers no substantial advantage that is not outweighed by defects, and that it would not allow any saving in expense over the process it is designed to supplant.

"Run as a separator alone under good conditions, this machine ought to give most excellent results, though in common with the DeLaval, and doubtless others, it varies greatly in skimming power, from causes that are partly unknown. As a skimmer it may be considered strictly first-class.

"Although the extractor appears unfavorably in comparison with a much older method, it cannot but be regarded as a marvel of inventive and mechanical skill. The surprise is in the first instance that it should do its work at all, and then, even though it be found wanting, that it should do its work so well. It is brought at the start into competition with a highly perfected machine and a method thoroughly understood from many years of experience. Its shortcoming under the severe test to which it is obliged to submit ought not to be cause of disappointment; there is room rather for encouragement, because it has done so much. Its future development is probably a question of the relative merits of sweet-cream butter and sour-cream butter.

"If experience and an educated taste shall finally favor the former, the extractor may be expected to take the place of the separator and the churn. But unless the decision shall fall in that direction, it is doubtful if the new device ever comes into general use."

It should be added to the foregoing that the comparison was made with the most perfect method of separating cream from milk now known. Had the extractor been compared with the old method of raising cream, the outcome would have been less unfavorable, as the separator gets out more cream than can be raised by gravity.

#### THE HIGHER EDUCATION OF THE DEAF.<sup>1</sup>

NATIONAL DEAF-MUTE COLLEGE,

WASHINGTON, D.C., April 1, 1892.

A. L. E. CROUTER, A.M., Principal:

*My Dear Sir.*—Your suggestions have received my most serious consideration. Allow me to thank you for the assurances of your friendly regard for the college and your appreciation of the value of the work it has already done. More grateful to the officers of the college than any written words could be, is the record of your

<sup>1</sup> Reply of President Gallaudet to the letter by Principal Crouter published in *Science* for April 8. Reprinted from the *Silent World*.